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# **GIS Coverages:**

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# **Glossary**

Aerobic

Refers to section 305 subsection "b" of the Clean Water Act. 305(b) generally describes a report of each state's water quality, and is the principle means by which the U.S. Environmental Protection Agency, Congress, and the public evaluate whether U.S. waters meet water quality standards, the progress made in maintaining and restoring water quality, and the extent

of the remaining problems.

**§303(d)** Refers to Section 303 subsection "d" of the Clean

Water Act. 303(d) requires states to develop a list of water bodies that do not meet water quality standards. This section also requires total maximum daily loads (TMDLs) be prepared for listed waters. Both the list and the TMDLs are subject to U.S. Environmental

Protection Agency approval.

**Acre-Foot** A volume of water that would cover an acre to a depth

of one foot. Often used to quantify reservoir storage

and the annual discharge of large rivers.

**Adsorption** The adhesion of one substance to the surface of

another. Clays, for example, can adsorb phosphorus

and organic molecules

**Aeration** A process by which water becomes charged with air

directly from the atmosphere. Dissolved gases, such as oxygen, are then available for reactions in water.

Describes life, processes, or conditions that require the

presence of oxygen.

**Alevin** A newly hatched, incompletely developed fish (usually

a salmonid) still in nest or inactive on the bottom of a

water body, living off stored yolk.

Algae Non-vascular (without water-conducting tissue)

aquatic plants that occur as single cells, colonies, or

filaments.

**Alluvium** Unconsolidated recent stream deposition.

**Ambient** General conditions in the environment. In the context

of water quality, ambient waters are those

representative of general conditions, not associated with episodic perturbations, or specific disturbances such as a wastewater outfall (Armantrout 1998, EPA

1996).

**Anadromous** Fish, such as salmon and sea-run trout, that live part or

the majority of their lives in the salt water but return to

fresh water to spawn.

Anaerobic

Describes the processes that occur in the absence of molecular oxygen and describes the condition of water that is devoid of molecular oxygen.

Anoxia

The condition of oxygen absence or deficiency.

Anthropogenic

Relating to, or resulting from, the influence of human

beings on nature.

**Anti-Degradation** 

Refers to the U.S. Environmental Protection Agency's interpretation of the Clean Water Act goal that states and tribes maintain, as well as restore, water quality. This applies to waters that meet or are of higher water quality than required by state standards. State rules provide that the quality of those high quality waters may be lowered only to allow important social or economic development and only after adequate public participation (IDAPA 58.01.02.051). In all cases, the existing beneficial uses must be maintained. State rules further define lowered water quality to be 1) a measurable change, 2) a change adverse to a use, and 3) a change in a pollutant relevant to the water's uses (IDAPA 58.01.02.003.56).

Aquatic Aquifer

Occurring, growing, or living in water.

An underground, water-bearing layer or stratum of permeable rock, sand, or gravel capable of yielding of water to wells or springs.

Assemblage (aquatic)

An association of interacting populations of organisms in a given water body; for example, a fish assemblage, or a benthic macroinvertebrate assemblage (also see Community) (EPA 1996).

**Assimilative Capacity** 

The ability to process or dissipate pollutants without ill effect to beneficial uses.

**Batholith** 

A large body of intrusive igneous rock that has more than 40 square miles of surface exposure and no known floor. A batholith usually consists of coarsegrained rocks such as granite.

Bedload

**Beneficial Use** 

Material (generally sand-sized or larger sediment) that is carried along the streambed by rolling or bouncing. Any of the various uses of water, including, but not

limited to, aquatic biota, recreation, water supply, wildlife habitat, and aesthetics, which are recognized

in water quality standards.

Beneficial Use Reconnaissance Program (BURP)

A program for conducting systematic biological and physical habitat surveys of water bodies in Idaho. BURP protocols address lakes, reservoirs, and

wadeable streams and rivers

Benthic

Pertaining to or living on or in the bottom sediments

of a water body

**Best Management Practices (BMPs)** 

Structural, nonstructural, and managerial techniques that are effective and practical means to control nonpoint source pollutants.

**Biochemical Oxygen Demand (BOD)** 

The amount of dissolved oxygen used by organisms during the decomposition (respiration) of organic matter, expressed as mass of oxygen per volume of water, over some specified period of time.

**Biological Integrity** 

1) The condition of an aquatic community inhabiting unimpaired water bodies of a specified habitat as measured by an evaluation of multiple attributes of the aquatic biota (EPA 1996). 2) The ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to the natural habitats of a region (Karr 1991).

**Biomass** 

The weight of biological matter. Standing crop is the amount of biomass (e.g., fish or algae) in a body of water at a given time. Often expressed as grams per square meter.

Biota Biotic The animal and plant life of a given region.

Clean Water Act (CWA)

A term applied to the living components of an area. The Federal Water Pollution Control Act (commonly known as as the Clean Water Act), as last reauthorized by the Water Quality Act of 1987, establishes a process for states to use to develop information on, and control the quality of, the nation's water resources. A group of bacteria predominantly inhabiting the intestines of humans and animals but also found in soil. Coliform bacteria are commonly used as indicators of the possible presence of pathogenic

Coliform Bacteria

A group of interacting organisms living together in a given place.

organisms (also see Fecal Coliform Bacteria).

Community

**Conductivity** 

The ability of an aqueous solution to carry electric current, expressed in micro ( $\mu$ ) mhos/cm at 25 °C. Conductivity is affected by dissolved solids and is used as an indirect measure of total dissolved solids in

a water sample.

Cretaceous

The final period of the Mesozoic era (after the Jurassic and before the Tertiary period of the Cenozoic era), thought to have covered the span of time between 135 and 65 million years ago.

Criteria

In the context of water quality, numeric or descriptive factors taken into account in setting standards for various pollutants. These factors are used to determine limits on allowable concentration levels, and to limit the number of violations per year. EPA develops criteria guidance; states establish criteria.

**Cubic Feet per Second** 

A unit of measure for the rate of flow or discharge of water. One cubic foot per second is the rate of flow of a stream with a cross-section of one square foot flowing at a mean velocity of one foot per second. At a steady rate, once cubic foot per second is equal to 448.8 gallons per minute and 10,984 acre-feet per day. The process of eutrophication that has been

**Cultural Eutrophication** 

accelerated by human-caused influences. Usually seen

as an increase in nutrient loading (also see

Eutrophication).

Decomposition

The breakdown of organic molecules (e.g., sugar) to inorganic molecules (e.g., carbon dioxide and water) through biological and nonbiological processes. Those water uses identified in state water quality

standards that must be achieved and maintained as

required under the Clean Water Act.

**Designated Uses** 

The amount of water flowing in the stream channel at the time of measurement. Usually expressed as cubic

feet per second (cfs).

**Dissolved Oxygen (DO)** 

The oxygen dissolved in water. Adequate DO is vital

to fish and other aquatic life.

Disturbance

**Discharge** 

Any event or series of events that disrupts ecosystem, community, or population structure and alters the physical environment.

E. coli

Short for *Escherichia Coli*, *E. coli* are a group of bacteria that are a subspecies of coliform bacteria. Most *E. coli* are essential to the healthy life of all warm-blooded animals, including humans. Their presence is often indicative of fecal contamination.

**Ecology** 

The scientific study of relationships between organisms and their environment; also defined as the

organishis and their environment, also defined as the

study of the structure and function of nature.

**Ecological Indicator** 

A characteristic of an ecosystem that is related to, or derived from, a measure of a biotic or abiotic variable that can provide quantitative information on ecological structure and function. An indicator can contribute to a measure of integrity and sustainability. Ecological indicators are often used within the multimetric index framework.

**Effluent** 

Use

**Extrapolation** 

**Ecological Integrity** The condition of an unimpaired ecosystem as

measured by combined chemical, physical (including

habitat), and biological attributes (EPA 1996).

**Ecosystem** The interacting system of a biological community and

its non-living (abiotic) environmental surroundings.

A discharge of untreated, partially treated, or treated

wastewater into a receiving water body.

**Endangered Species** Animals, birds, fish, plants, or other living organisms

threatened with imminent extinction. Requirements for declaring a species as endangered are contained in

the Endangered Species Act.

**Environment** The complete range of external conditions, physical

and biological, that affect a particular organism or

community.

**Ephemeral Stream** A stream or portion of a stream that flows only in

direct response to precipitation. It receives little or no water from springs and no long continued supply from melting snow or other sources. Its channel is at all times above the water table. (American Geologic

Institute 1962).

**Erosion** The wearing away of areas of the earth's surface by

water, wind, ice, and other forces.

**Eutrophic** From Greek for "well nourished," this describes a

highly productive body of water in which nutrients do not limit algal growth. It is typified by high algal

densities and low clarity.

**Eutrophication** 1) Natural process of maturing (aging) in a body of

water. 2) The natural and human-influenced process of enrichment with nutrients, especially nitrogen and phosphorus, leading to an increased production of

organic matter.

**Exceedance** A violation (according to DEQ policy) of the pollutant

levels permitted by water quality criteria.

**Existing Beneficial Use or Existing** A beneficial use actually attained in waters on or after

November 28, 1975, whether or not the use is designated for the waters in Idaho's *Water Quality Standards and Wastewater Treatment Requirements* 

(IDAPA 58.01.02).

**Exotic Species** A species that is not native (indigenous) to a region.

Estimation of unknown values by extending or

projecting from known values.

**Fauna** Animal life, especially the animals characteristic of a

region, period, or special environment.

**Fecal Coliform Bacteria**Bacteria found in the intestinal tracts of all warm-

blooded animals or mammals. Their presence in water is an indicator of pollution and possible contamination

by pathogens (also see Coliform Bacteria).

Feedback Loop In the context of watershed management planning, a

feedback loop is a process that provides for tracking progress toward goals and revising actions according

to that progress.

Fixed-Location Monitoring Sampling or measuring environmental conditions

continuously or repeatedly at the same location.

Flow See Discharge.

Fluvial In fisheries, this describes fish whose life history takes

place entirely in streams but migrate to smaller

streams for spawning.

Focal Critical areas supporting a mosaic of high quality

habitats that sustain a diverse or unusually productive

complement of native species.

Fully Supporting In compliance with water quality standards and within

the range of biological reference conditions for all designated and exiting beneficial uses as determined through the *Water Body Assessment Guidance* (Grafe

et al. 2002).

Fully Supporting Cold Water Reliable data indicate functioning, sustainable cold

water biological assemblages (e.g., fish,

macroinvertebrates, or algae), none of which have been modified significantly beyond the natural range

of reference conditions (EPA 1997).

A georeferenced database.

**Geographical Information Systems** 

(GIS)

**Ground Water** 

Geometric Mean A back-transformed mean of the logarithmically

transformed numbers often used to describe highly variable, right-skewed data (a few large values), such

as bacterial data.

Grab Sample A single sample collected at a particular time and

place. It may represent the composition of the water in

that water column.

**Gradient** The slope of the land, water, or streambed surface.

Water found beneath the soil surface saturating the layer in which it is located. Most ground water originates as rainfall, is free to move under the influence of gravity, and usually emerges again as

stream flow.

Growth Rate A measure of how quickly something living will

develop and grow, such as the amount of new plant or animal tissue produced per a given unit of time, or

number of individuals added to a population.

Habitat Headwater Hydrologic Basin

**Hydrologic Unit** 

**Hydrologic Unit Code (HUC)** 

Hydrology

**Impervious** 

Inorganic Instantaneous

**Intergravel Dissolved Oxygen** 

Intermittent Stream

**Key Watershed** 

The living place of an organism or community.

The origin or beginning of a stream.

The area of land drained by a river system, a reach of a river and its tributaries in that reach, a closed basin, or a group of streams forming a drainage area (also see

Watershed).

One of a nested series of numbered and named watersheds arising from a national standardization of watershed delineation. The initial 1974 effort (USGS 1987) described four levels (region, subregion, accounting unit, cataloging unit) of watersheds throughout the United States. The fourth level is uniquely identified by an eight-digit code built of two-digit fields for each level in the classification. Originally termed a cataloging unit, fourth field hydrologic units have been more commonly called subbasins. Fifth and sixth field hydrologic units have since been delineated for much of the country and are known as watershed and subwatersheds, respectively. The number assigned to a hydrologic unit. Often used

The science dealing with the properties, distribution, and circulation of water.

Describes a surface, such as pavement, that water cannot penetrate.

to refer to fourth field hydrologic units.

Materials not derived from biological sources. A condition or measurement at a moment (instant) in time.

The concentration of dissolved oxygen within spawning gravel. Consideration for determining spawning gravel includes species, water depth, velocity, and substrate.

1) A stream that flows only part of the year, such as when the ground water table is high or when the stream receives water from springs or from surface sources such as melting snow in mountainous areas. The stream ceases to flow above the streambed when losses from evaporation or seepage exceed the available stream flow. 2) A stream that has a period of zero flow for at least one week during most years. A watershed that has been designated in Idaho

A watershed that has been designated in Idaho Governor Batt's *State of Idaho Bull Trout* 

Conservation Plan (1996) as critical to the long-term persistence of regionally important trout populations.

**Land Application** A process or activity involving application of

wastewater, surface water, or semi-liquid material to the land surface for the purpose of treatment, pollutant

removal, or ground water recharge.

**Limiting Factor** A chemical or physical condition that determines the

growth potential of an organism. This can result in a complete inhibition of growth, but typically results in

less than maximum growth rates.

**Limnology** The scientific study of fresh water, especially the

history, geology, biology, physics, and chemistry of

lakes.

**Load Allocation (LA)** A portion of a water body's load capacity for a given

pollutant that is given to a particular nonpoint source

(by class, type, or geographic area).

**Load(ing)** The quantity of a substance entering a receiving

stream, usually expressed in pounds or kilograms per day or tons per year. Loading is the product of flow

(discharge) and concentration.

**Loading Capacity (LC)** A determination of how much pollutant a water body

can receive over a given period without causing violations of state water quality standards. Upon allocation to various sources, and a margin of safety, it

becomes a total maximum daily load.

**Loam** Refers to a soil with a texture resulting from a relative

balance of sand, silt, and clay. This balance imparts many desirable characteristics for agricultural use.

A uniform wind-blown deposit of silty material. Silty

soils are among the most highly erodible.

**Luxury Consumption** A phenomenon in which sufficient nutrients are

Loess

available in either the sediments or the water column of a water body, such that aquatic plants take up and store an abundance in excess of the plants' current

needs

Macroinvertebrate An invertebrate animal (without a backbone) large

enough to be seen without magnification and retained

by a 500µm mesh (U.S. #30) screen.

Macrophytes Rooted and floating vascular aquatic plants, commonly

referred to as water weeds. These plants usually

flower and bear seeds. Some forms, such as duckweed and coontail (*Ceratophyllum sp.*), are free-floating

forms not rooted in sediment.

Margin of Safety (MOS) An implicit or explicit portion of a water body's loading capacity set aside to allow the uncertainly about the relationship between the pollutant loads and the quality of the receiving water body. This is a required component of a total maximum daily load (TMDL) and is often incorporated into conservative assumptions used to develop the TMDL (generally within the calculations and/or models). The MOS is not allocated to any sources of pollution. **Mass Wasting** A general term for the down slope movement of soil and rock material under the direct influence of gravity. Describes the central tendency of a set of numbers. Mean The arithmetic mean (calculated by adding all items in a list, then dividing by the number of items) is the statistic most familiar to most people. Median The middle number in a sequence of numbers. If there are an even number of numbers, the median is the average of the two middle numbers. For example, 4 is the median of 1, 2, 4, 14, 16; and 6 is the median of 1, 2, 5, 7, 9, 11. 1) A discrete measure of something, such as an Metric ecological indicator (e.g., number of distinct taxon). 2) The metric system of measurement. A unit of measure for concentration in water, Milligrams per liter (mg/L) essentially equivalent to parts per million (ppm). A unit of measure for the rate of discharge of water, Million gallons per day (MGD) often used to measure flow at wastewater treatment plants. One MGD is equal to 1.547 cubic feet per second. Of, relating to, or being an epoch of, the Tertiary Miocene between the Pliocene and the Oligocene periods, or the corresponding system of rocks. A periodic or continuous measurement of the Monitoring properties or conditions of some medium of interest, such as monitoring a water body. The location where flowing water enters into a larger Mouth water body. A national program established by the Clean Water **National Pollution Discharge** Act for permitting point sources of pollution. **Elimination System (NPDES)** Discharge of pollution from point sources is not allowed without a permit. A condition indistinguishable from that without Natural Condition

human-caused disruptions.

considered a nutrient.

Nitrogen

An element essential to plant growth, and thus is

Not Attainable

**Nutrient Cycling** 

**Nonpoint Source** A dispersed source of pollutants, generated from a

geographical area when pollutants are dissolved or suspended in runoff and then delivered into waters of the state. Nonpoint sources are without a discernable point or origin. They include, but are not limited to, irrigated and non-irrigated lands used for grazing, crop production, and silviculture; rural roads; construction and mining sites; log storage or rafting; and recreation

sites

Not Assessed (NA) A concept and an assessment category describing

water bodies that have been studied, but are missing critical information needed to complete an assessment.

A concept and an assessment category describing water bodies that demonstrate characteristics that make it unlikely that a beneficial use can be attained (e.g., a stream that is dry but designated for salmonid

spawning).

Not Fully Supporting Not in compliance with water quality standards or not

within the range of biological reference conditions for any beneficial use as determined through the *Water Body Assessment Guidance* (Grafe et al. 2002).

Not Fully Supporting Cold Water At least one biological assemblage has been

significantly modified beyond the natural range of its

reference condition (EPA 1997).

**Nuisance** Anything which is injurious to the public health or an

obstruction to the free use, in the customary manner,

of any waters of the state.

**Nutrient** Any substance required by living things to grow. An

element or its chemical forms essential to life, such as carbon, oxygen, nitrogen, and phosphorus. Commonly

refers to those elements in short supply, such as nitrogen and phosphorus, which usually limit growth.

The flow of nutrients from one component of an ecosystem to another, as when macrophytes die and

release nutrients that become available to algae

(organic to inorganic phase and return).

Oligotrophic The Greek term for "poorly nourished." This

describes a body of water in which productivity is low and nutrients are limiting to algal growth, as typified

by low algal density and high clarity.

Organic Matter Compounds manufactured by plants and animals that

contain principally carbon.

**Orthophosphate** A form of soluble inorganic phosphorus most readily

used for algal growth.

Oxygen-Demanding Materials Those materials, mainly organic matter, in a water

body that consume oxygen during decomposition.

Parameter A variable, measurable property whose value is a

> determinant of the characteristics of a system, such as temperature, dissolved oxygen, and fish populations

are parameters of a stream or lake.

The sharing of limited resources by different races or **Partitioning** 

> species; use of different parts of the habitat, or the same habitat at different times. Also the separation of

a chemical into two or more phases, such as

partitioning of phosphorus between the water column

and sediment.

Disease-producing organisms (e.g., bacteria, viruses,

parasites).

**Perennial Stream** A stream that flows year-around in most years.

Attached microflora (algae and diatoms) growing on

the bottom of a water body or on submerged

substrates, including larger plants.

Substances or mixtures of substances intended for Pesticide

> preventing, destroying, repelling, or mitigating any pest. Also, any substance or mixture intended for use

as a plant regulator, defoliant, or desiccant.

The negative  $log_{10}$  of the concentration of hydrogen pН

ions, a measure which in water ranges from very acid

(pH=1) to very alkaline (pH=14). A pH of 7 is

neutral. Surface waters usually measure between pH 6

and 9.

A total maximum daily load (TMDL) that identifies

interim load allocations and details further monitoring

to gauge the success of management actions in

achieving load reduction goals and the effect of actual load reductions on the water quality of a water body.

Under a phased TMDL, a refinement of load

allocations, wasteload allocations, and the margin of

safety is planned at the outset.

An element essential to plant growth, often in limited

supply, and thus considered a nutrient.

In the context of bioassessment, the term is commonly

used to mean the physical and chemical factors of the water column that relate to aquatic biota. Examples in bioassessment usage include saturation of dissolved gases, temperature, pH, conductivity, dissolved or suspended solids, forms of nitrogen, and phosphorus.

This term is used interchangeable with the terms "physical/chemical" and "physicochemical."

Microscopic algae (phytoplankton) and animals

(zooplankton) that float freely in open water of lakes

and oceans.

**Pathogens** 

Periphyton

**Phased TMDL** 

**Phosphorus** 

**Physiochemical** 

Plankton

**Point Source** A source of pollutants characterized by having a

discrete conveyance, such as a pipe, ditch, or other identifiable "point" of discharge into a receiving water. Common point sources of pollution are

industrial and municipal wastewater.

**Pollutant** Generally, any substance introduced into the

environment that adversely affects the usefulness of a

resource or the health of humans, animals, or

ecosystems.

**Pollution** A very broad concept that encompasses human-caused

changes in the environment which alter the functioning

of natural processes and produce undesirable environmental and health effects. This includes human-induced alteration of the physical, biological, chemical, and radiological integrity of water and other

media.

**Population** A group of interbreeding organisms occupying a

particular space; the number of humans or other living

creatures in a designated area.

**Pretreatment** The reduction in the amount of pollutants, elimination

of certain pollutants, or alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, discharging or otherwise introducing such wastewater into a publicly owned wastewater

treatment plant.

**Primary Productivity**The rate at which algae and macrophytes fix carbon

dioxide using light energy. Commonly measured as milligrams of carbon per square meter per hour. A series of formal steps for conducting a test or

**Protocol** A series of formal steps for conducting a test or

survey.

**Qualitative**Descriptive of kind, type, or direction. **Quantitative**Descriptive of size, magnitude, or degree.

Reference

**Reach** A stream section with fairly homogenous physical

characteristics.

**Reconnaissance** An exploratory or preliminary survey of an area.

A physical or chemical quantity whose value is

known, and thus is used to calibrate or standardize

instruments.

## Reference Condition

uses with little effect from human activity and represents the highest level of support attainable. 2) A benchmark for populations of aquatic ecosystems used to describe desired conditions in a biological assessment and acceptable or unacceptable departures

1) A condition that fully supports applicable beneficial

assessment and acceptable or unacceptable departures from them. The reference condition can be determined through examining regional reference sites, historical conditions, quantitative models, and expert judgment (Hughes 1995).

A specific locality on a water body that is minimally impaired and is representative of reference conditions for similar water bodies.

A portion of material or water that is as similar in content and consistency as possible to that in the larger body of material or water being sampled.

A term that describes fish that do not migrate. A process by which organic matter is oxidized by organisms, including plants, animals, and bacteria. The process converts organic matter to energy, carbon dioxide, water, and lesser constituents.

A relatively shallow, gravelly area of a streambed with a locally fast current, recognized by surface choppiness. Also an area of higher streambed gradient and roughness.

Associated with aquatic (stream, river, lake) habitats. Living or located on the bank of a water body.

A U.S. Forest Service description of land within the following number of feet up-slope of each of the banks of streams:

- 300 feet from perennial fish-bearing streams
- 150 feet from perennial non-fish-bearing streams
- 100 feet from intermittent streams, wetlands, and ponds in priority watersheds.

A large, natural, or human-modified stream that flows in a defined course or channel, or a series of diverging and converging channels.

The portion of rainfall, melted snow, or irrigation water that flows across the surface, through shallow underground zones (interflow), and through ground water to creates streams.

Deposits of fragmented materials from weathered rocks and organic material that were suspended in, transported by, and eventually deposited by water or air.

# **Reference Site**

# Representative Sample

# Resident Respiration

# Riffle

# Riparian

# Riparian Habitat Conservation Area (RHCA)

# River

#### Runoff

#### **Sediments**

Settleable Solids The volume of material that settles out of one liter of

water in one hour.

1) A reproductively isolated aggregate of interbreeding organisms having common attributes and usually

designated by a common name. 2) An organism belonging to such a category.

Ground water seeping out of the earth where the water

table intersects the ground surface.

Stratification A Department of Environmental Quality classification

method used to characterize comparable units (also

called classes or strata).

A natural water course containing flowing water, at

least part of the year. Together with dissolved and suspended materials, a stream normally supports communities of plants and animals within the channel

and the riparian vegetation zone.

Hierarchical ordering of streams based on the degree Stream Order

> of branching. A first-order stream is an unforked or unbranched stream. Under Strahler's (1957) system, higher order streams result from the joining of two

streams of the same order.

**Storm Water Runoff** Rainfall that quickly runs off the land after a storm. In

developed watersheds the water flows off roofs and pavement into storm drains that may feed quickly and directly into the stream. The water often carries

pollutants picked up from these surfaces.

A large watershed of several hundred thousand acres.

This is the name commonly given to 4<sup>th</sup> field hydrologic units (also see Hydrologic Unit).

A watershed-based problem assessment that is the first

step in developing a total maximum daily load in

Idaho.

A smaller watershed area delineated within a larger

watershed, often for purposes of describing and managing localized conditions. Also proposed for adoption as the formal name for 6<sup>th</sup> field hydrologic

units

Sediments of small size deposited on the surface of a

streambed or lake bottom. The upper size threshold for fine sediment for fisheries purposes varies from 0.8

to 605 mm depending on the observer and

methodology used. Results are typically expressed as a percentage of observation points with fine sediment.

**Species** 

# **Spring**

# Stream

#### **Subbasin**

# **Subbasin Assessment (SBA)**

#### Subwatershed

# **Surface Fines**

**Surface Water** 

**Suspended Sediments** 

Taxon

**Tertiary** 

**Threatened Species** 

**Total Maximum Daily Load (TMDL)** 

**Total Suspended Solids (TSS)** 

**Toxic Pollutants** 

**Tributary** 

All water naturally open to the atmosphere (rivers, lakes, reservoirs, streams, impoundments, seas, estuaries, etc.) and all springs, wells, or other collectors that are directly influenced by surface water. Fine material (usually sand size or smaller) that remains suspended by turbulence in the water column until deposited in areas of weaker current. These sediments cause turbidity and, when deposited, reduce living space within streambed gravels and can cover fish eggs or alevins.

Any formal taxonomic unit or category of organisms (e.g., species, genus, family, order). The plural of taxon is taxa (Armantrout 1998).

An interval of geologic time lasting from 66.4 to 1.6 million years ago. It constitutes the first of two periods of the Cenozoic Era, the second being the Quaternary. The Tertiary has five subdivisions, which from oldest to youngest are the Paleocene, Eocene, Oligocene, Miocene, and Pliocene epochs.

Species, determined by the U.S. Fish and Wildlife Service, which are likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

A TMDL is a water body's loading capacity after it has been allocated among pollutant sources. It can be expressed on a time basis other than daily if appropriate. Sediment loads, for example, are often calculated on an annual bases. TMDL = Loading Capacity = Load Allocation + Wasteload Allocation + Margin of Safety. In common usage, a TMDL also refers to the written document that contains the statement of loads and supporting analyses, often incorporating TMDLs for several water bodies and/or pollutants within a given watershed.

The dry weight of material retained on a filter after filtration. Filter pore size and drying temperature can vary. American Public Health Association Standard Methods (Greenborg, Clescevi, and Eaton 1995) call for using a filter of 2.0 micron or smaller; a 0.45 micron filter is also often used. This method calls for drying at a temperature of 103-105 °C.

Materials that cause death, disease, or birth defects in organisms that ingest or absorb them. The quantities and exposures necessary to cause these effects can vary widely.

A stream feeding into a larger stream or lake.

**Trophic State** 

**Turbidity** 

Wasteload Allocation (WLA)

Water body

Water Column

Water Pollution

Water Quality

Water Quality Criteria

Water Quality Limited

Water Quality Limited Segment (WQLS)

The level of growth or productivity of a lake as measured by phosphorus content, chlorophyll *a* concentrations, amount (biomass) of aquatic vegetation, algal abundance, and water clarity.

A measure of the extent to which light passing through water is scattered by fine suspended materials. The effect of turbidity depends on the size of the particles (the finer the particles, the greater the effect per unit weight) and the color of the particles.

The portion of receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. Wasteload allocations specify how much pollutant each point source may release to a water body.

A stream, river, lake, estuary, coastline, or other water feature, or portion thereof.

Water between the interface with the air at the surface and the interface with the sediment layer at the bottom. The idea derives from a vertical series of measurements (oxygen, temperature, phosphorus) used

to characterize water.

Any alteration of the physical, thermal, chemical, biological, or radioactive properties of any waters of the state, or the discharge of any pollutant into the waters of the state, which will or is likely to create a nuisance or to render such waters harmful, detrimental, or injurious to public health, safety, or welfare; to fish and wildlife; or to domestic, commercial, industrial, recreational, aesthetic, or other beneficial uses. A term used to describe the biological, chemical, and

physical characteristics of water with respect to its suitability for a beneficial use.

Levels of water quality expected to render a body of water suitable for its designated uses. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, or industrial processes.

A label that describes water bodies for which one or more water quality criterion is not met or beneficial uses are not fully supported. Water quality limited segments may or may not be on a §303(d) list. Any segment placed on a state's §303(d) list for failure to meet applicable water quality standards, and/or is not expected to meet applicable water quality standards in the period prior to the next list. These segments are also referred to as "§303(d) listed."

Water Quality Modeling The prediction of the response of some characteristics

> of lake or stream water based on mathematical relations of input variables such as climate, stream

flow, and inflow water quality.

State-adopted and EPA-approved ambient standards Water Quality Standards

> for water bodies. The standards prescribe the use of the water body and establish the water quality criteria

that must be met to protect designated uses.

The upper surface of ground water; below this point,

the soil is saturated with water.

1) All the land which contributes runoff to a common

point in a drainage network, or to a lake outlet. Watersheds are infinitely nested, and any large watershed is composed of smaller "subwatersheds." 2) The whole geographic region which contributes

water to a point of interest in a water body.

An area that is at least some of the time saturated by

surface or ground water so as to support with vegetation adapted to saturated soil conditions. Examples include swamps, bogs, fens, and marshes.

Young fish born the year captured, evidence of

spawning activity.

Water Table

Watershed

Wetland

Young of the Year